

REMARKS

Summary

Amended Claim 1 recites the concept of outputting information concerning the stored developer amount *until* the developer amount of confirmed, which concept is not understood to be disclosed or suggested by the patents to Miura, et al. or Hayashi. In addition, rejected Claim 13 has been amended to overcome a formal objection. Therefore, the application is now in allowable form.

Status of the claims

Claims 1, 2, 5-16, and 18-21 are pending. Claims 1 and 13 have been amended. Claims 1 and 13 are independent.

Requested action

Applicants respectfully request the Examiner to reconsider and withdraw the outstanding objection and rejection in view of the foregoing amendments and the following remarks.

Allowable subject matter

Applicants gratefully acknowledge the indication that Claims 2, 8, 13-16, and 18-21 would be allowed if Claim 13 is redrafted to overcome the formal objection noted below. Since Applicants have so redrafted Claim 13, as will be discussed below, Applicants respectfully request that these claims be allowed.

Formal objection

Claims 13-16 and 18-21 have been objected to because the word “of” is missing from the phrase “by the output one of the memory” in Claim 13. In response, Applicants have amended Claim 13 to add this missing word, thereby obviating the objection.

Substantive rejection

Claims 1, 5-7, and 9-12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the patent to Miura, et al. (U.S. Patent No. 5,307,129) in view of the patent to Hayashi (Japanese Document No. 9-62078), both cited in the July 2, 2003 Information Disclosure Statement.

Response to substantive rejection

In response, Applicants submit that amended Claim 1 is allowable for the following reasons.

Independent Claim 1 relates to an image forming apparatus comprising an opening and closing member being openable and closable, an exchangeable member detachably attachable to a body of the image forming apparatus and including a developer container for containing developer, developer amount detecting means for detecting an amount of the developer contained in the developer container, a memory configured to store information concerning the amount of the developer detected by the detecting means, control means for causing the detecting means to perform a detection operation for the developer a plurality of times, and output means for outputting the information stored in the memory.

Claim 1 has been amended to recite that the control means causes the detecting means to perform a detection operation for the developer a plurality of times at a timing after the input of

power into the image forming apparatus from a power source, after the exchangeable member is attached to the body of the image forming apparatus, or after the opening and closing member is closed, performing a confirmation process for confirming the amount of the developer on the basis of a result of the detection operation, and updating the information stored in the memory after confirming the amount of the developer.

Claim 1 has also been amended to recite that the output means outputs the information concerning the amount of the developer stored in the memory, until the amount of the developer is confirmed by the confirmation process, from the timing after the input of power into the image forming apparatus from the power source, after the exchangeable member is attached to the body of the image forming apparatus, or after the opening and closing member is closed, and outputs the updated information after the amount of the developer is confirmed by the confirmation process.

By this arrangement, the user can be informed of the amount of developer without waiting for the performing of a developer detection operation and for the confirmation process confirming the amount of detected developer.

In contrast, the patents to Miura, et al. and Hayashi are not understood to disclose or suggest output means for outputting information concerning the amount of the developer stored in a memory, until the amount of the developer is confirmed by a confirmation process, from the timing after the input of power into an image forming apparatus from a power source, after an exchangeable member is attached to the body of the image forming apparatus, or after an opening and closing member is closed, and outputting the updated information after the amount of the developer is confirmed by the confirmation process, as recited by amended Claim 1. Rather, the patent to Miura, et al., as is admitted in the Office Action, does not teach a confirmation process,

and the Abstract of the patent to Hayashi discussed in the Office Action merely discloses that an abnormality in the developer supply is prevented from being erroneously detected using a toner sensor 22 to detect whether the toner remaining amount is equal to or less than a specified amount. Neither patent is understood to disclose or suggest that output means outputs information concerning the amount of the developer stored in a memory, until the amount of the developer is confirmed by a confirmation process, as recited by amended Claim 1.

The failure of these references to disclose or suggest at least this feature proves fatal to establishing a prima facie case of obviousness against amended Claim 1, since MPEP §2142, requires that:

To establish a prima facie case of obviousness... the prior art reference (or references when combined) must teach or suggest all the claim limitations.

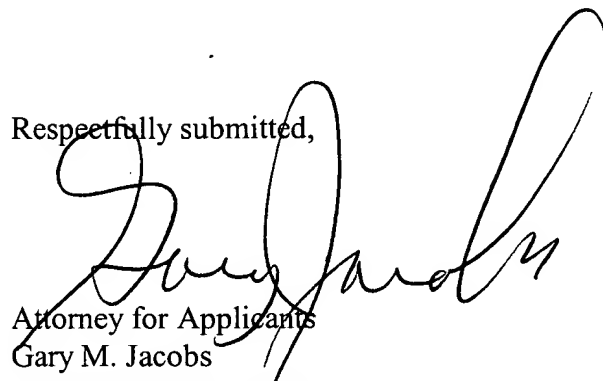
For this reason, amended Claim 1 is allowable over the patents to Miura, et al. and Hayashi.

The dependent claims are allowable for the reasons given with respect to independent Claim 1 and because they recite features that are patentable in their right. Individual consideration of the dependent claims is respectfully solicited.

In view of the above amendments and remarks, the claims are now in allowable form. Therefore, early passage to issue is respectfully solicited.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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